leiospermum Kindberg, Monog. Lepig. 23 (1863). *Buda marina*, var. (?) *minor* Wats. & Coult. in Gray, Man. ed. 6, 90 (1890). *Spergularia salina*, var. ? *minor* Robinson in Gray, Synop. Fl. i. pt. 1, 252 (1897). *Spergularia salina*, var. *leiosperma* Gürke, Pl. Eur. ii. 196 (1899).— Baie des Chaleurs, Quebec, and Cape Breton Island to Connecticut and southward (Philadelphia and Carolina, *fide* Kindberg); and apparently on the Pacific Coast. The following from among many specimens are cited as characteristic. QUEBEC: damp hollows in gravelly beach, Carleton, July 21, 1904 (*Collins & Fernald*). PRINCE EDWARD ISLAND: beach, Summerside, July 21, 1901 (*J. R. Churchill*). NOVA SCOTIA: Baddeck, Cape Breton Island, July 18, 1883 (*J. Macoun*); near beach, Yarmouth, July 22, 1901 (*Howe & Lang*, no. 24). MAINE: dryish strand, Moose Island, Passamaquoddy Bay, August 16, 1909 (*Fernald & Wiegand*); strand, Pleasant Point, Perry, August 16, 1909 (*Fernald & Wiegand*); pool, Great Cranberry Isle, July 31, 1893 (*J. H. Redfield*); Wells Beach (various collectors). MASSACHUSETTS: Malden, 1867 (*Wm. Boott*); Oak Island, Revere, August 13, 1882 (*H. A. Young*); Cambridge (*Wm. Boott*); shore of "Salt Pond," Eastham, August 16, 1908 (*F. S. Collins*, no. 610); Gay Head, Martha's Vineyard, August 2, 1897 (*S. Harris*). RHODE ISLAND: without definite station, 1844 (*G. Thurber*); Tiverton, September 27, 1903 (*J. M. Greenman*, no. 1765 in part). CONNECTICUT: New Haven (collector unknown); salt marsh, Orange, August 3, 1897 (*C. H. Bissell*, no. 107).

Dwarf plants with very short pedicels and small capsules, etc. were described by Watson as *Buda marina*, var. (?) *minor*, from the Isles of Shoals and adjacent coast of New Hampshire. Similar dwarf plants have been collected on Cape Breton Island. Material collected at Guilford, Connecticut, by Mr. G. H. Bartlett has the bracts of *S. leiosperma* but the seeds papillose as in *S. salina*. This is the only clearly transitional material found in the study of the species.

TERATOLOGY IN TRILLIUM.

WALTER DEANE.

THROUGH the kindness of Mr. Edwin DeMeritte I have been enabled for the third time (See RHODORA, x. 21–24 & 214–216, 1908) to examine and record teratological specimens of the Painted Trillium, *Trillium undulatum* Willd. from his summer camp at Squam Lake, Holderness, New Hampshire. As I have previously stated, these plants were all growing in a very limited area, not more than two meters across "in the leaf-mould and scanty soil on a rocky ridge,"

not far from the shore of the lake. Mr. DeMeritte examined the spot again on May 29, 1909, and found four abnormal plants, three with three whorls of three leaves each and a perfect blossom, and one with two whorls of three leaves each and a double blossom. He took the last one and one of first three, leaving the root-stocks, pressed them, and presented them to me. It was fortunate that he procured flowers this time, as we had not seen them before. I will describe the plants in detail, as it may be useful to the future student of this branch of botany.

The plant with the double flower and two whorls of three leaves each is 19.5 cm. in height. It is 13 cm. to the first node, where there are three withered bases of leaves, which were evidently eaten by insects. The internode above this is 1.7 cm. long, and at the second node there are three, broadly ovate, taper-pointed, petioled leaves. The blades of these leaves are respectively 6.7 cm., 6.5 cm. and 5.5 cm. in length, and the petioles 8 mm., 10 mm. and 15 mm. in length. Above this node is the peduncle, 4.2 cm. long, crowned by the flower. The three sepals are broadly ovate, taper-pointed, sessile, green, and are respectively 6 cm., 5 cm. and 5.5 cm. in length. There are six petals, ovate to obovate, wavy margined, with very abrupt tapering points, and from 3 cm. to 4 cm. in length. The color of four of the petals is normal, i. e., white with purple stripes at the base, but the remaining two petals, which are in the outer row, have, beside the usual coloration, one, a broad, dark green band occupying the center of the petal from base to tip, and the other, a narrow, light green line running down the center the entire length, on one side of which near the tip is a dash of light green. There are three normal stamens opposite the three outer petals. The pistil consists of a three-lobed ovary, two normal styles and one bent and deformed. On one side of the ovary is a rudimentary stamen, the filament and half the anther contiguous with it along a narrow ridge, which extends perpendicularly the length of the ovary. The anther is destitute of pollen grains. The ovary itself, as well as the twisted character of the interior shows, is two-celled with axile placentae and many ovules.

The second plant has three whorls of three leaves each. It is 22 cm. high and 13 cm. to the first node where there are three broadly ovate, taper-pointed, petioled leaves with the blades 8 cm. and the petioles 2.5 cm., 3 cm. and 3 cm. in length. The first internode is 5.5 cm. long, and at the second node are three broadly ovate, taper-

pointed, petioled leaves, with the blades 7 cm., 7 cm. and 6 cm., and the petioles all 5 mm. in length. The second internode is 2 cm. long and at the third node are three ovate, taper-pointed, sessile leaves, two with a single lobe on one side, a little nearer the base than apex, the sinus pointing to the base of the leaf, and giving the effect in a general way of the single-lobed form of leaf of our common Sassafras (*Sassafras variifolium* (Salisb.) Ktze.), while the third leaf has a notch in the same position, showing an approach to the same kind of lobe. The leaves are 6.2 cm., 6.5 cm. and 5.7 cm. in length. Above this node is the peduncle, 1 cm. long, surmounted by the flower, which is normal as to the petals and stamens. The sepals are three in number, green, ovate, taper-pointed, sessile, 4.5 cm. in length and 2 cm. in width. The ovary is normal as to its exterior, but is one-celled with three parietal placentae and numerous ovules.

The plants taken from this same station in 1907 and 1908 by Mr. DeMeritte exhibited in general the plan of three, excepting one which was growing about two meters from the others and showed the plan of three and of four in its various parts. The persistency of these forms now for three seasons is significant and would seem to indicate a normal condition of abnormality in this particular locality.

An interesting *Trillium erectum* L. came to my notice on May 30, 1909, and I examined it in a fresh state. A party of us were driving on that day through the Glen Road at the base of the White Mountains in New Hampshire. The sides of the way were lined with this handsome Trillium in full flower, the large rhombic leaves and the deep maroon petals making a beautiful display. We collected a large bunch, and in the evening I examined each plant carefully and found one case of teratology. In all points not mentioned below, such as size and shape of leaves, etc., the plant is normal. There is a single whorl of four leaves. The sepals are five in number, green with an edging of maroon, two of them in addition streaked with maroon. There are four petals alternating with the sepals and leaving one vacant place where there is absolutely no evidence that a fifth petal was ever present, the two adjoining petals being contiguous at the base. There are eight stamens, four opposite, and four alternating with the petals. One of the latter stamens is double, the anthers separate for three fifths of the way from the apex, the remaining two fifths, as well as the filaments, united. The ovary is eight-winged, one-celled, with four parietal placentae, each placenta attached to the wall between

two ridges, and two ridges being between two adjoining placentae. The attachment of the placentae is opposite the petals, and the ovules are numerous.

All the specimens above described are in my herbarium.

Cambridge, Massachusetts.

LONICERA PROLIFERA AND L. FLAVIDA.

Alfred Rehder.

In the new edition of Gray's Manual the name *Lonicera Sullivantii* is adopted as the valid name for that species, but a strict application of the Vienna code of nomenclature will necessitate a change, as the oldest valid specific name for the species is *Caprifolium proliferum* Kirchner, antedating Gray's name by almost twenty years. Kirchner's description in this case is rather good and there can be no doubt about the species he had in mind. Moreover I have seen herbarium specimens under the name of *Caprifolium proliferum* and *L. prolifera* collected in European gardens in the sixties, two of them preserved in the herbarium of the St. Louis Botanic Garden, which represent the same species. The combination *Lonicera prolifera* is not entirely new, for it was published, though without any description, as far back as 1840. The authority cited "Booth Cat." corresponds with the information Kirchner gives who says that he obtained the species from the nurseries at Flottbeck; Booth's nursery at Flottbeck was at that time one of the best known in Germany and famous for its collections of rare and new plants. This shows that the *Lonicera* in question has been in cultivation in Europe for at least seventy years and has been considered a distinct species by German horticulturists. I append here the synonymy of the species omitting Rafinesque's *Lonicera rupestris* and *L. reticulata* quoted in my Synopsis of the genus *Lonicera* with a query under *L. Sullivantii*; these two species being very doubtful may not belong to *Lonicera* at all.

Lonicera prolifera (Kirchner) n. comb.— [*L. prolifera* Booth Cat. ex Heynhold, Nomencl. Bot. Hort. I. 476. 1840, nomen nudum. *L. spec. nov.* Sullivant, Cat. Plant. Columbus 29, 57. 1840.] *L.*